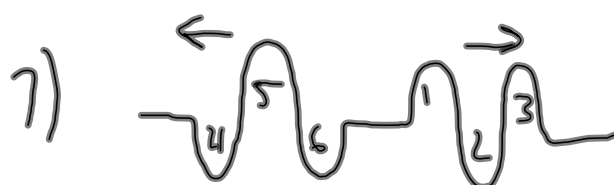
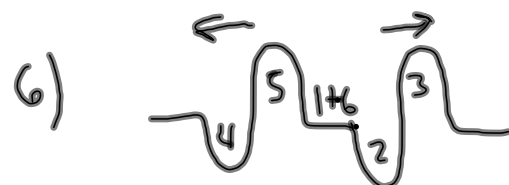
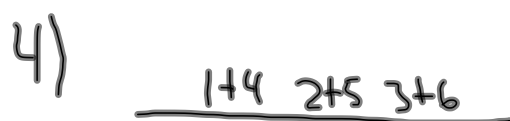
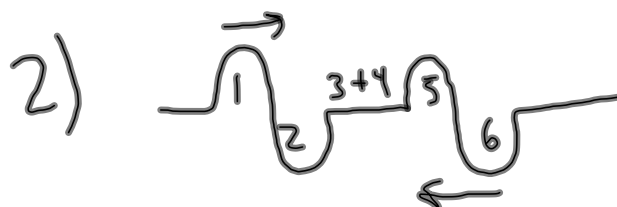
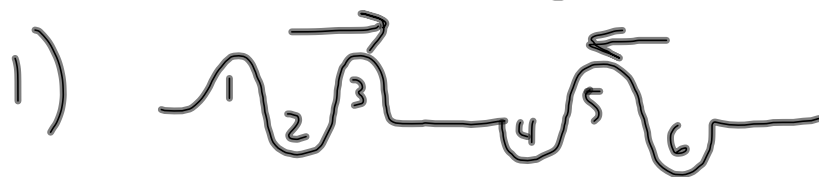


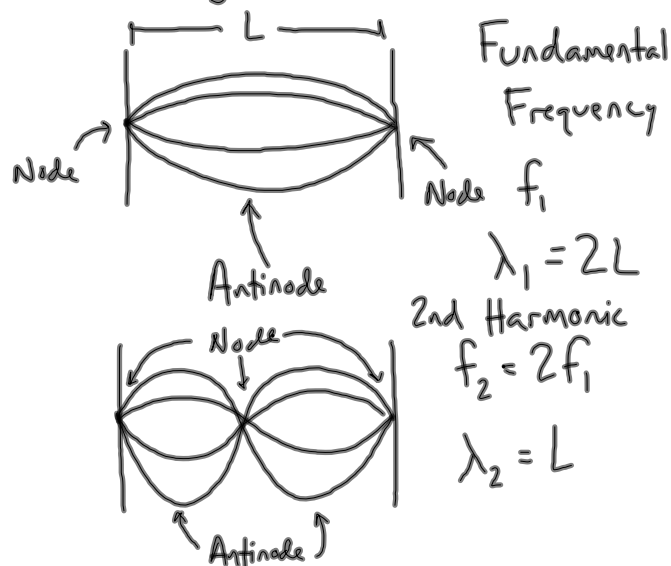
Combination Practice:



Reflections at Boundaries:

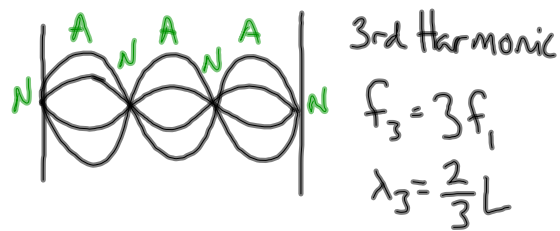
- Free end \rightarrow reflected wave
Same (upright or inverted)
as incoming wave
- Fixed end \rightarrow reflected wave
is opposite incoming wave

Standing Waves:



Node \rightarrow place of destructive interference

Antinode \rightarrow " " constructive "



$$f_n = \frac{nV}{2L} \quad n=1,2,3,\dots$$

n = # of harmonic

V = Velocity of wave on string

f_n = frequency of the harmonic

L = length of string

$$\lambda_n = \frac{2L}{n} \quad n=1,2,3,\dots$$

Natural frequency \rightarrow frequency
at which the object is inclined
to produce